Reply Comments on Mobile Spectrum Holdings

Federal Communications Commission
WT Docket No. 12-269

Communications
Liberty and
Innovation Project

The Communications Liberty and Innovation Project[1] (CLIP) submits these reply comments in response to the Notice of Proposed Rulemaking regarding mobile spectrum aggregation released by the Federal Communications Commission (FCC) on September 28, 2012.[2]

I. Executive Summary

Commenters in this proceeding are asking the FCC to reverse nearly twenty years of successful mobile spectrum policy by drawing distinctions among mobile spectrum bands in the aggregation context. One commenter submitted an incomplete theoretical analysis that *assumes* spectrum propagation characteristics are the most significant factor in the costs of a mobile network deployment and thus may serve as a reliable proxy for more comprehensive market analyses. The *empirical* evidence demonstrates that this assumption is false: Differences in propagation characteristics among spectrum bands are neither competitively significant nor a reliable proxy for competitive analysis. There simply is no evidence that aggregation of mobile spectrum with particular propagation characteristics enables anticompetitive behavior or results in consumer harm.

The same differences in propagation characteristics identified by commenters in this proceeding have not changed in the twenty years since the FCC concluded (pursuant to a Congressional mandate) that all mobile spectrum bands should be treated similarly. And, based on more extensive factual records, the FCC has repeatedly affirmed that this policy

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[1] The Communications Liberty and Innovation Project (CLIP) is a project of the Competitive Enterprise Institute. CLIP supports 21st Century policies that promote boundless innovation, private investment, and sustainable economic growth through free markets and entrepreneurship in America's technology industries.

[2] Policies Regarding Mobile Spectrum Holdings, *Notice of Proposed Rulemaking*, FCC 12-119 (2012) (*Mobile Spectrum Notice*).

remains valid in today's mobile marketplace. For example, in late 2011, the FCC staff found that T-Mobile, despite its lack of spectrum below 1 GHz, offers a disruptive competitive alternative to other nationwide providers. In this and other recent proceedings, the FCC has found that spectrum below 1 GHz is not necessary to compete successfully in the mobile marketplace.

On the other hand, discriminating against holders of spectrum below 1 GHz would cause affirmative harm to competition and consumers. Weighting spectrum bands below 1 GHz differently than other spectrum bands could limit (or prohibit entirely) the participation of potential bidders in the upcoming broadcast incentive auction, in which all of the available frequencies will be below 1 GHz. This would provide holders of spectrum above 1 GHz with an advantage in relation to bidders holding spectrum below 1 GHz, which is what the FCC wished to avoid when it decided nearly twenty years ago to treat all mobile spectrum bands similarly for spectrum aggregation purposes. Tilting the bidding in favor of certain bidders based on spectrum propagation characteristics would be inconsistent with the purposes of competitive bidding, the incentive auction statute, and fair competition. Such government favoritism would also jeopardize the success of the auction itself, a particular dire consequence with a looming spectrum crunch and the fate of the nation's interoperable public safety network hanging in the balance.

The potential benefits of distinguishing between spectrum bands in the aggregation context are entirely speculative. But, the potential harms are very real. In the absence of compelling new evidence, the FCC should continue to treat all mobile spectrum the same for purposes of spectrum aggregation and rely on market forces to determine the relative distribution of mobile spectrum bands among service providers.

II. Discussion

A. This proceeding is limited to Commission policies regarding mobile spectrum aggregation.

It appears that many commenters in this proceeding have misapprehended its purpose. The *Mobile Spectrum Notice* limited the scope of this proceeding to Commission policies regarding mobile spectrum aggregation.[3] Since their inception, these policies have been intended to promote competition by discouraging anticompetitive behavior.[4] For twenty years, the FCC's concern in this regard has been that, "if licensees were to aggregate sufficient amounts of [mobile] spectrum, it would be possible for them, unilaterally or in combination, to exclude efficient competitors, to reduce the quantity or quality of services provided, or to increase prices to the detriment of consumers."[5] Any policy adopted in this proceeding must address the potential for anticompetitive harm arising from the aggregation of mobile spectrum, which is a discrete issue in a mobile market power analysis. Other issues implicated by the Commission's review of transactions involving mobile spectrum – *e.g.*, more general market power analyses – are outside the scope of this proceeding.

B. There is no evidence supporting proposals to draw distinctions among mobile spectrum bands in the aggregation context.

There is no evidence that the aggregation of spectrum in particular mobile bands would enable any licensee, either unilaterally or in combination, to exclude efficient competitors, to reduce the quantity or quality of services provided, or to increase prices to the detriment of

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[3] *See id.* at ¶ 2.

[4] *See, e.g.,* 2000 Biennial Regulatory Review Spectrum Aggregation Limits for Commercial Mobile Radio Services, *Report and Order*, FCC 01-328 ¶ 26 (Dec. 18, 2001).

[5] *Id*. at ¶ 12.

consumers. Although one commenter submitted an incomplete *theoretical* analysis regarding the potential competitive impact of spectrum below 1 GHz,[6] the *empirical* evidence demonstrates that differences in propagation characteristics among spectrum bands are not competitively significant. The empirical evidence simply cannot support a finding that the aggregation of mobile spectrum with particular propagation characteristics would enable any licensee to engage in anticompetitive behavior in the mobile marketplace.

1. Market evidence demonstrates that differences in propagation characteristics are not competitively significant.

The empirical evidence demonstrates that the theoretical submission in the record proposes a solution to a problem that does not exist. The *Theoretical Analysis* posits a hypothetical – the remote possibility that "a single carrier could completely dominate spectrum under 1 GHz" – and suggests that it would enable anticompetitive behavior because it is sometimes more expensive to deploy mobile networks in spectrum above 1 GHz. His proposed "solution" to this theoretical "problem" is to "weight spectrum by frequency, where weights reflect the extent to which spectrum at that frequency yields lower costs for the deployment and operation of equipment."[7] Though it is certainly true that differences in frequency can affect the cost of deploying a mobile network that emphasizes *coverage*, the available evidence indicates that coverage is *not* a significant competitive issue in the mobile marketplace today.[8]

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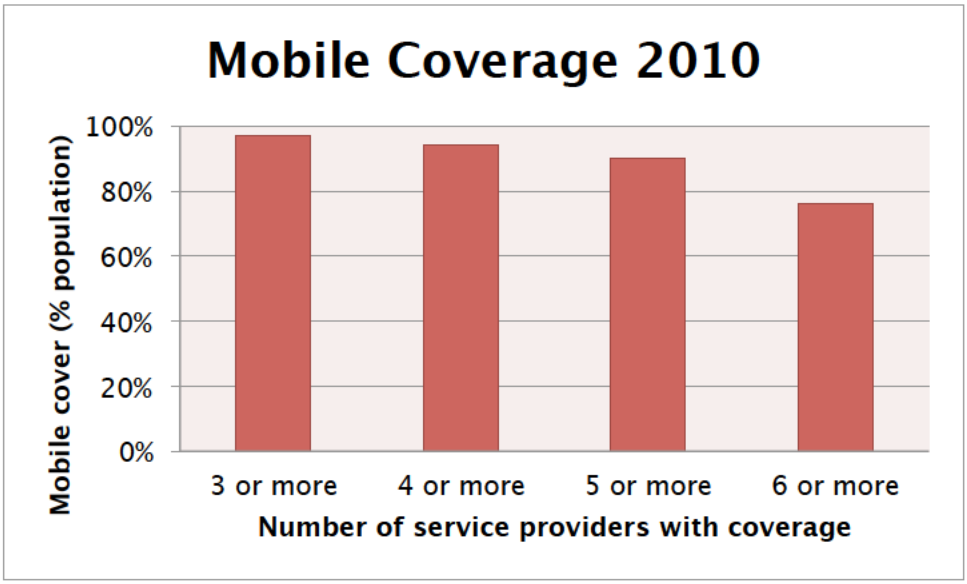
[6] *See* Comments for Public Knowledge, WT Docket Nos. 12-269, 11-186 (filed Nov. 28, 2012) ("*Theoretical Analysis*").

[7] *Theoretical Analysis* at 5.

[8] The cost of deployment may be relevant in very rural areas, but as the Commission had already recognized, rural deployment scenarios are constrained by more than propagation characteristics. If propagation characteristics

The evidence demonstrates that mobile providers are currently providing competitive coverage without spectrum below 1 GHz. The Commission's most recent mobile competition report found that ninety percent of the U.S. population lives in a census block served by *five or more* mobile service providers.[9]



In most geographic areas, at least *one* (and likely more) of the five service providers offering coverage is competing successfully with spectrum *above* 1 GHz. For example, though T-Mobile primarily holds spectrum in the PCS (1.9 GHz) and AWS (2.1 GHz) bands and holds next to

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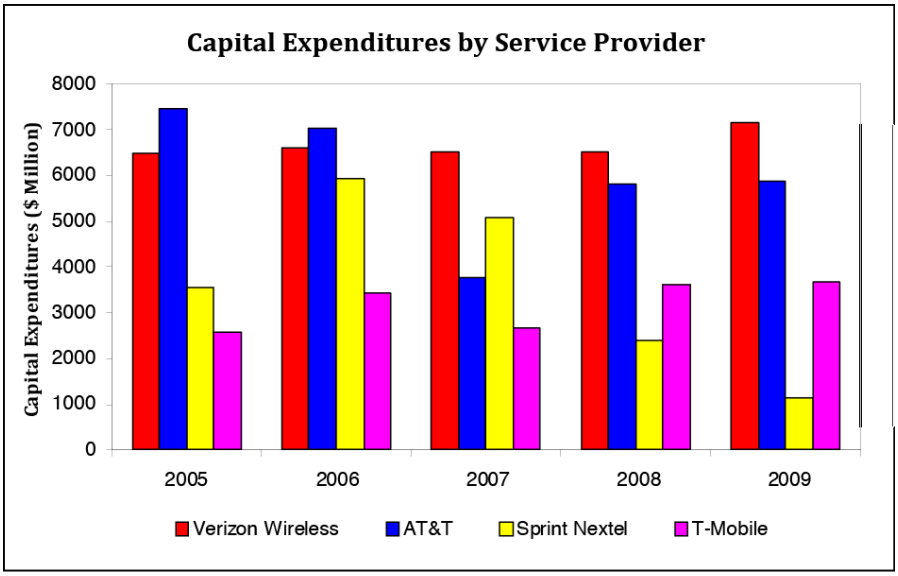
were the limiting factor in rural areas, nationwide service providers that hold substantial spectrum below 1 GHz (*e.g.*, Sprint Nextel) would not have asked for reconsideration of the "home roaming exception." See [cite roaming recon].

[9] *See* Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, *Fifteenth Report*, FCC 11-103 at 6 (2011) ("*15th Mobile Report*").

no spectrum below 1 GHz,[10] its network provides mobile coverage to more than 293 million Americans.[11]

As the FCC itself has repeatedly recognized, the transformation of mobile networks from voice to broadband has rendered *capacity* the primary driver of mobile network costs. The evidence indicates that the availability of spectrum below 1 GHz is irrelevant to the vast majority of capital investment in mobile network infrastructure. If propagation characteristics played a competitively significant role in mobile network deployment, one would expect that service providers with substantial spectrum holdings below 1 GHz would not need to invest as much in their networks as service providers with spectrum above 1 GHz. During the five-year period from 2005 to 2009, however, the nationwide providers with spectrum below 1 GHz typically invested significantly *more* capital in their networks than T-Mobile.[12]

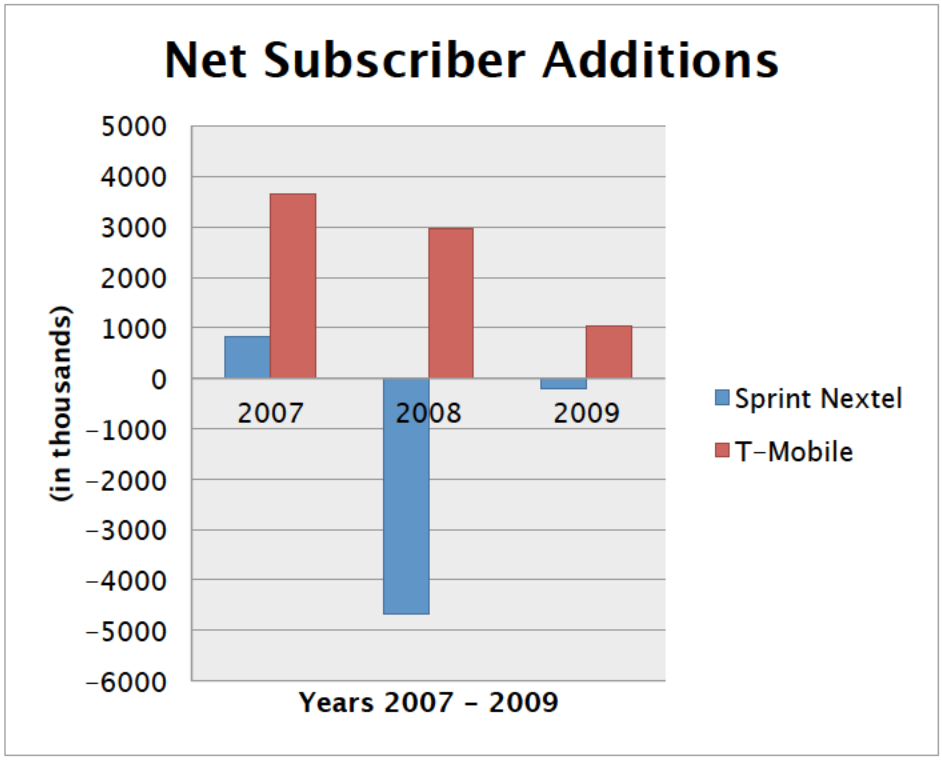


[10] *15th Mobile Report*, Table 27. T-Mobile holds one Part 22 Cellular license. *See id.*

[11] *See* Staff Analysis and Findings, WT Docket No. 11-65 ¶ 8 (Nov. 29, 2011) ("*Staff Analysis*").

[12] *See 15th Mobile Report*, Chart 30.

The lower capital expenditures of T-Mobile and its lack of spectrum below 1 GHz did not prevent it from competing with its nationwide rivals. Indeed, T-Mobile has been more competitive in the marketplace than Sprint Nextel, which holds substantial spectrum below 1 GHz nationwide. From 2007 through 2009, T-Mobile added more subscribers each year than Sprint Nextel.



T-Mobile also reported higher EBITDA margins than Sprint Nextel during the same period.[13]

This *real-world* evidence of mobile competition demonstrates that the *Theoretical Analysis* in this record is unpersuasive: Empirical evidence proves that propagation characteristics are not a reliable proxy for more comprehensive market analyses.

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[13] *See 15th Mobile Report*, Chart 34.

2. The FCC has found that differences in propagation characteristics are not competitively significant.

The FCC's recent findings regarding T-Mobile demonstrate that spectrum below 1 GHz is not necessary to compete successfully in the mobile marketplace. In its review of the proposed merger of AT&T and T-Mobile, FCC staff found that, despite holding almost no spectrum below 1 GHz, T-Mobile offers a competitive alternative to nationwide providers holding substantial spectrum below 1 GHz, and that T-Mobile "has played an important role in the development of a more competitive mobile services marketplace."[14] Based on its review of extensive evidence, the staff concluded that, "T-Mobile is a substitute for AT&T,"[15] and "many AT&T customers view T-Mobile products as their second choice, and vice versa."[16] If spectrum below 1 GHz were competitively significant, it is unlikely that many AT&T customers would have viewed T-Mobile, which lacks such spectrum, as their second choice – they would instead have viewed one of the other nationwide service providers with mobile spectrum holdings below 1 GHz as their second choice.

The FCC staff has already found that the aggregation of spectrum below 1 GHz does not enable anticompetitive behavior, and that a service provider who lacks spectrum holdings below 1 GHz is not competitively constrained. The staff found that, "T-Mobile is a firm that acts as a disruptive force in wireless industry competition – in setting prices, introducing pricing innovations, and bringing to market new products and improved technologies."[17] It

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[14] *See Staff Analysis* at ¶ 22.

[15] *See id.* at ¶ 54.

[16] *See id.* at ¶ 55.

[17] *See id.* at ¶ 78.

also found that T-Mobile had the "ability to expand output inexpensively" using PCS and AWS spectrum.[18]

The Commission's construction requirements also constitute findings that extensive geographic coverage can be rapidly provided on a competitive basis in frequencies above 1 GHz. In 2010, the Commission required LightSquared to construct a nationwide terrestrial mobile network in the L-Band (1.6 GHz) providing coverage to at least 100 million people in *less than two years* and 260 million people in less than five years.[19] The Commission found that this network would enhance competition among mobile providers and could even "be a catalyst for market-changing developments in the use and sale of innovative new mass-market consumer devices."[20] The FCC nevertheless concluded that, if LightSquared failed to meet its coverage requirements, its terrestrial license would be null and void without further Commission action. The FCC could not have justified this conclusion if spectrum below 1 GHz was necessary to provide a competitive mobile service.

3. The FCC recently rejected the *assumption* that spectrum below 1 GHz is competitively significant.

In its initial comments in this proceeding, CLIP noted that, if the FCC intends to draw distinctions among mobile spectrum bands in this context, it would first need to obtain an extraordinary amount of data and provide an opportunity for public comment on that data.[21] The *Theoretical Analysis* admits that propagation characteristics are only one factor among many that influence mobile deployment costs (even assuming the cost of coverage is of

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[18] *See id.*

[19] *See* SkyTerra Communications, Inc., *Memorandum Opinion and Order and Declaratory Ruling*, DA 10-535 at app. B, att. 2, ¶ 5 (IB, OET, WTB, Mar. 26, 2010).

[20] *See id.* at ¶ 62.

[21] *See* Comments of the Communications Liberty and Innovation Project, WT Docket No. 12-269 at 13-14 (filed Nov. 28, 2012).

significant competitive relevance). The *Theoretical Analysis* nevertheless argues that a "reasonable simplification" would be "more appropriate" than treating all mobile bands equally. In essence, the *Theoretical Analysis* invites the FCC to simply assume without further analysis that spectrum propagation characteristics are the most significant factor in the costs of mobile network deployment.

FCC staff rejected this invitation little more than a year ago when it had far more evidence in front of it. In their failed attempt to merge, AT&T and T-Mobile argued that "access to AT&T's GSM network, including its low band 850 MHz cellular spectrum, will provide T-Mobile USA subscribers with improved coverage, including superior in-building service and coverage compared to T-Mobile USA's existing GSM network."[22] FCC staff refused to *assume* that AT&T's 850 MHz frequencies would benefit T-Mobile's subscribers. It instead concluded that, "there is insufficient quantitative evidence in the record to assess these claims" and focused its analysis on *capacity*.

The FCC should reach the same conclusion in this proceeding. It does not serve the public interest for an expert agency to make decisions based on speculative assumptions that are inconsistent with the available empirical evidence and its own decisions on which the ink has barely dried.

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[22] *See Staff Analysis* at ¶ 185 n. 490.

C. Drawing distinctions among mobile spectrum bands in the spectrum aggregation context would be inconsistent with Congressional intent and FCC precedent.

In the Omnibus Budget Reconciliation Act of 1993,[23] Congress mandated that "substantially similar" mobile services "be accorded similar regulatory treatment under the Commission's Rules."[24] A year later, the Commission concluded that, "mobile services will be treated as substantially similar *if they compete against each other*," and that, to the extent practical, the Commission's rules should be comparable for virtually all mobile services.[25]

> Such a regulatory regime will ensure that the marketplace—and not the regulatory arena—shapes the development and delivery of mobile services to meet the demands and needs of consumers, except where relying on market forces might lead to a result that is harmful to competition or to consumers.[26]

Although the Commission recognized that low-bandwidth mobile services (e.g., paging) were not substantially similar to high-bandwidth mobile services (CMRS) for the purpose of spectrum aggregation, the Commission did not distinguish among high-bandwidth mobile spectrum bands based on their propagation characteristics.[27] The FCC was particularly concerned with providing certain providers with an advantage in upcoming auctions, and concluded that "adopting consistent restrictions on spectrum aggregation for PCS, cellular,

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[23] *See* Pub.L. No. 103–66, Title VI § 6002(b), 107 Stat. 312, 392 (1993).

[24] *See* Implementation of Sections 3(n) and 332 of the Communications Act, Regulatory Treatment of Mobile Services, *Third Report and Order*, FCC 94-212 ¶ 4 (1994) ("*CMRS Third Report and Order*").

[25] *See CMRS Third Report and Order* at ¶ 14 (emphasis added).

[26] *See id.* at ¶ 23.

[27] *See id.* at ¶ 252.

and SMR will help establish a level playing field for participants in our competitive bidding proceedings, and help give free play to market forces."[28]

III. Conclusion

The FCC has relied on market forces to determine the relative distribution of mobile spectrum bands among mobile service providers for nearly twenty years and there is no evidence that continuing this policy might result in harm to competition or consumers in the future. As demonstrated above, the FCC has recently found that mobile providers can compete successfully without spectrum below 1 GHz. In the absence of compelling new evidence, an abrupt change in policy would be arbitrary and capricious.

Respectfully submitted,

COMMUNICATIONS LIBERTY AND INNOVATION PROJECT

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[28] *See id*. at ¶ 262.